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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/937,255

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6470

7590

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EXAMINER

BELLO, AGUSTIN

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/937,255

Applicant(s)

KAWASHIMA ET AL.

Examiner

Agustin Bello

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2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/24/01.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young (U.S. Patent No. 6,567,011) in view of Davies (U.S. Patent No. 4,246,611).

Regarding claims 1, 5, 9, and 10 Young teaches a plurality of keys closing switch contacts (reference numeral SXX in Figure 15B) corresponding thereto when pressed down; a microcomputer (reference numeral U1 in Figure 15B) coupled to said keys for generating a remote-control signal in response to pressing each of said keys; and a transmission circuit (reference numeral IR1 in Figure 15A) coupled to said microcomputer for transmitting a remote-control signal, wherein the microcomputer is operable to: be shifted to a test mode when a specific key of said keys is pressed (e.g. "Mode <<Magic>>" of column 9 lines 9-23); store (via ROM in U1 of Figure 15B and described in column 12 lines 65-67) an indication of which of said contacts are detected as closed after the test mode is initiated (e.g. storing "4-4-3" of column 9 lines 9-23), said contacts indicated as closed responsive to respective depressions of said keys; and transfer the indication of said contacts detected as closed and said contacts detected as not closed said transmission circuit (e.g. blinking LED of column 9 lines 9-23). Young differs from the claimed invention in that Young fails to specifically teach storing indications of which of

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said contacts are detected as not closed. Davies, in the same field of remote controls, teaches that it is well known in the art to store indications of which of said contacts are detected as not closed (column 4 line 27 – column 5 line 16; e.g. bit shift register is initiated with 0's via the serial input shown in Figure 2, then a pulse for the depressed key is saved into the register). Furthermore, Young suggests storing indications of which of said contacts are detected as not closed via the disclosure of RAM within the microprocessor and the ability to determine whether or not a correct key sequence is followed in the "Mode <<Magic>>." Moreover, one skilled in the art would have been motivated to store indications of which of said contacts are detected as not closed in order to have a complete account of which keys have been depressed and which have not. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to store indications of which of said contacts are detected as not closed as suggested by Young and taught by Davies.

Regarding claims 2, 4, 6, and 8, Young teaches that said transmission circuit transmits the signal as one of an infrared ray signal (via IR1 in Figure 15A) and a radio signal.

Regarding claims 3 and 7, Young teaches that the remote-control test signal additionally carries an identification signal of said microcomputer (e.g. "unique IR data output" of column 8 lines 52-65).

Regarding claim 11, Young teaches that transfer of said indications is delayed until after more than one of said indications of closing of said contacts has been stored (e.g. 0.5 second delays of column 9 lines 9-23; e.g. storing 4-4-3, the upon release of key "1" in column 9 lines 9-23).

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3. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Young (U.S. Patent No. 6,567,011) in view of Davies (U.S. Patent No. 4,246,611) and Duffield (U.S. Patent No. 5,451,953).

Regarding claim 12, the combination of Young and Davies differs from the claimed invention in that it fails to specifically teach that one of said keys is detected as not closed despite being depressed. However, as noted by Duffield, this feature is very common in typical keyboard scanning software (column 2 lines 42-57). One skilled in the art would have been motivated to include such a feature in the combined device of Young and Davies in order to avoid ambiguity between reading of keys pressed simultaneously. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include as a feature in the combination of Young and Davies the ability to detect one of said keys as not closed despite being depressed.

#### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**AGUSTIN BELLO**  
**PRIMARY EXAMINER**